

CLAIMS

1. A shoe including a ventilation system, comprising:
an upper defining at least one opening; and
at least one guiding surface extending over and directing an airflow into the opening under a movement of the shoe.
2. The ventilation system according to claim 1, wherein the guiding surface extends substantially across an entire dimension of the opening.
3. The ventilation system according to claim 1, wherein a longitudinal extent of the guiding surface is oriented substantially perpendicular with respect to an overall direction of the movement of the shoe relative to a ground engaging surface.
4. The ventilation system according to claim 1, wherein the guiding surface is inclined relative to a ground engaging surface of the shoe.
5. The ventilation system according to claim 4, wherein the guiding surface is oriented substantially parallel to a passing airflow during a greatest relative velocity phase of a step cycle.
6. The ventilation system according to claim 4, wherein the guiding surface is oriented at an angle from about 0° to about 60° relative to the ground engaging surface of the shoe.
7. The ventilation system according to claim 4, wherein the guiding surface is oriented at an angle of about 40° relative to the ground engaging surface of the shoe.
8. The ventilation system according to claim 1, wherein an outer edge of the guiding surface is inclined relative to a longitudinal axis of the shoe.
9. The ventilation system according to claim 8, wherein the outer edge of the guiding surface is oriented at an angle from about 15° to about 90° relative to the longitudinal axis of the shoe.

10. The ventilation system according to claim 8, wherein the outer edge of the guiding surface is oriented at an angle of about 45° relative to the longitudinal axis of the shoe.
11. The ventilation system according to claim 1, wherein a plurality of guiding surfaces extend over the opening.
12. The ventilation system according to claim 11, wherein the guiding surfaces are substantially identically shaped.
13. The ventilation system according to claim 11, wherein the guiding surfaces are disposed substantially parallel to one another.
14. The ventilation system according to claim 11, wherein the guiding surfaces are interconnected by at least one beam.
15. The ventilation system according to claim 1, wherein the opening is at least partially closed by a cover.
16. The ventilation system according to claim 15, wherein the cover is removable.
17. The ventilation system according to claim 1, wherein the upper further comprises a membrane disposed across at least a portion of the opening.
18. The ventilation system according to claim 1, wherein the opening is formed in a midfoot region of the upper.
19. The ventilation system according to claim 18, wherein the opening is formed in at least one of a medial side and a lateral side of the upper.
20. The ventilation system according to claim 1, wherein the shoe defines at least one outlet.
21. The ventilation system according to claim 20, wherein the outlet is formed in a sole of the shoe.

22. A shoe including a ventilation system, the ventilation system comprising:
 - an inlet formed in the shoe;
 - an outlet formed in the shoe; and
 - a ventilation channel in fluid communication with the inlet.
23. The ventilation system according to claim 22, wherein the ventilation channel extends substantially along at least one of a medial side and a lateral side of the shoe.
24. The ventilation system according to claim 22, wherein the ventilation channel is in fluid communication with an interior region of the shoe.
25. The ventilation system according to claim 22, wherein the inlet is disposed proximate an instep region of an upper of the shoe.
26. The ventilation system according to claim 22, wherein the inlet is inclined relative to a longitudinal axis of the shoe.
27. The ventilation system according to claim 26, wherein the inlet is oriented at an angle from about 15° to about 90° relative to a longitudinal axis of the shoe.
28. The ventilation system according to claim 22, wherein the outlet is formed in at least one of an upper and a sole region of the shoe.
29. The ventilation system according to claim 28, wherein the outlet is centrally disposed in a sole of the shoe.
30. The ventilation system according to claim 22, further comprising a plurality of ventilation channels.
31. The ventilation system according to claim 30, wherein the ventilation channels are disposed substantially parallel to one another.

32. A shoe including a ventilation system, comprising:
an upper defining at least one opening; and
a linear vane structure comprising at least one vane disposed over the opening.
33. The ventilation system according to claim 32, wherein the vane is substantially triangularly shaped.
34. The ventilation system according to claim 32, wherein the vane includes at least one guiding surface for directing an airflow into the opening under a movement of the shoe.
35. The ventilation system according to claim 32, wherein a plurality of vanes are arranged substantially parallel to one another along the upper of the shoe.